BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking Regarding Policies, Procedures and Rules for the California Solar Initiative, the Self-Generation Incentive Program and Other Distributed Generation Issues.	Rulemaking 06-03-004

OPENING COMMENTS OF PACIFIC GAS & ELECTRIC COMPANY ON THE STAFF PROPOSAL FOR PERFORMANCE BASED INCENTIVES AND OTHER ELEMENTS OF THE CALIFORNIA SOLAR INITIATIVE

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I. EXECUTIVE SUMMARY

In accordance with the Ruling by Administrative Law Judge Duda issued on April 25, 2006, Pacific Gas and Electric Company respectfully submits these Opening Comments on the Staff Proposal for Performance Based Incentives and Other Elements of the California Solar Initiative. PG&E appreciates this opportunity to address these issues. As requested in Judge Duda's Ruling With Additional Guidance of May 9, these comments address issues in all the sections of the Staff Proposal, including sections 2 through 8.

PG&E applauds the Staff for its work in preparing the proposal, and for its clear and lucid explanations at the Workshop on May 4th. Although it had previously recommended different positions in some areas, PG&E supports and accepts many of the Staff suggestions as reasonable compromises among differing views. PG&E does have some suggestions for change and clarification to the Staff Proposal which it believes will help ensure a more successful implementation of the CSI.

The most significant of PG&E's suggestions for change are discussed briefly in this Executive Summary. Areas of support for the Staff Proposal, and other suggestions for changes or response to some of Staff questions are addressed in the body below, which is organized in the same manner as the Staff Report.

PG&E Should Be Allowed To Administer All CSI Segments In Its Service Area. Most significantly, PG&E believes strongly that it should be the administrator of the CSI for all customer segments in its service area. It has demonstrated ability to handle high volume incentive programs, has a very successful track record administering the self-generation incentive program (SGIP), and has demonstrated support for solar power in multiple ways, including the successful interconnection of nearly half the solar projects installed in the entire United States in 2004. PG&E administration would be an efficient and cost effective way to avoid dispersal of activities among many agencies and administrators. Moreover, to rule otherwise would directly contradict the CPUC's directions on energy efficiency administration and weaken its jurisdiction and control over the non-utility administrator. Finally, it would not be prudent to create a risk for customers of potentially higher taxes resulting from use of a non-utility administrator until the tax issue is clarified by the IRS.

The PBI Cap Should Not Discourage Innovation And Efficiency. In its written proposal, the Staff recommended that PBI payments be capped at 10% above a 20% capacity factor. At the workshop, it clarified that it would permit a higher capacity factor cap of 33% for tracking systems, and would consider alternate caps for technologies that demonstrate that they can achieve higher efficiencies than the current technologies. PG&E understands the need for some kind of a cap in order to track and manage budgets. But it

shares Staff's view that the cap should not hinder the development of better solar technologies, and therefore suggests that the additional details of how the cap will work should be made expressly clear. Unless clarified, a cap on PBI payments could discourage innovation.

The EPBB Should Factor In Geographic Location. The purpose of a performance related incentive is to encourage the development and deployment of solar projects that perform better than others. The Staff Proposal does this for the Expected Performance Based Buy Down (EPBB) Incentive by factoring in orientation and shading, which is appropriate. However, Staff expressly declines in include geographic location in the factors shaping the amount of payments under the EPBB. PG&E encourages the CPUC to include such a factor in the EPBB calculations. Some parts of the state, like the Central Valley, are expected to produce far more power than other locations. For example, the Clean Power Estimator on the Energy Commission web site predicts that a project in Merced will produce 25% more power than a project in Eureka. The Commission should encourage projects to locate in the best locations by including a location factor in the EPBB, such as the location factors used in the Clean Power Estimator.

The EPBB Orientation Factor Should Not Discourage On-Peak Deliveries. The Staff proposed a lower incentive under the EPBB for PV panels facing directions other than south. Some adjustment for orientation is clearly warranted. However, basic logic suggests that panels oriented to the west are likely to produce more power later in the day than panels oriented to the south, which are more likely to peak closer to noon. The system peaks in California are usually in the late afternoon. The Orientation factor used in

the EPBB should not discourage west-facing orientation that encourages on-peak deliveries.

Other comments on staff proposal are addressed below.

II. DISCUSSION

As requested in Judge Duda's Supplemental Ruling of May 9, the following sections are numbered with the same numbering system as the numbers used in the Staff Proposal.

2. Bringing A Performance Dimension to Incentive Payments.

2.1 PG&E General Comments/Background.

In general, PG&E agrees with the Staff Proposal to incorporate a performance dimension to incentive payments. PG&E agrees that "The goal should be for the ratepayer contribution to be set in such a way that" the CPUC achieves its "overall objectives with the lowest possible ratepayer contribution." (See Proposal at page 10). Even with the significant increase in solar generation contemplated by the CSI, a large majority of customers will not be able to afford to participate in the program.

PG&E agrees that the focus of any performance-based incentive should be on larger installations, at least at first. However, it believes that it should be possible to extend the PBI to projects between 30 and 100 kW in the next few years.

2.2. Factoring In the Federal Tax Credit.

PG&E has no comment at this time on the proposed methodology for incorporating federal tax credits, but is hopeful that the 30% federal tax credit will be extended past 2007. PG&E notes that some customers, while eligible for tax credits (and thus subject to a lower rebate amount under the Staff proposal) could for a variety of other reasons be unable to take advantage of the tax credit. However, PG&E supports the staff position that

the CSI program administrators' duty would be to implement the tax status that each entity self reports, rather than verifying their tax status. Additionally the program administrators should simply look to see if the customer reports that it is exempt from taxes, rather than trying to pay an adjusted incentive depending on particular tax circumstances, as that could be an administrative nightmare.

2.3. Performance Based Incentive -- Large Solar PV Systems > 100 kW

PG&E agrees that a flat per kWh incentive payment over the five year period provides clarity and supports this proposal. PG&E also agrees that the incentive awarded to projects coming on line in later years should be reduced by a predetermined amount each year, either the 10% included in the Staff Proposal, or by an amount equivalent to the reduction contemplated by the CPUC in D.06-01-024. However, the Commission should maintain some flexibility to adjust this schedule as conditions change.

The PBI Cap Should Not Discourage Innovation And Efficiency. In its written proposal, the Staff proposed to cap PBI payments at 10% above a 20% capacity factor. (See Proposal at pp. 4, 17). At the workshop on May 4, Staff clarified that it would permit a higher capacity factor cap of 33% for tracking systems, and would consider alternate caps for technologies that demonstrate that they can achieve higher efficiencies than the current technologies. The details of how this process would work were not specified. PG&E supports changes to make expressly clear that higher performing technologies can seek a higher incentive than the 22% cap in the written Staff Proposal. Part of the purpose of this program is to encourage higher solar production and new ideas, and unless clarified, a cap on PBI payments could discourage innovation. PG&E also recommends that

capacity factors be evaluated in future Measurement and Evaluation (M&E) impact reports, and those results should be included in future program revisions.

PG&E suggests the CPUC might consider incorporating the time value of money into the Performance Based Incentive (PBI) design. For projects between 30 and 100 kW, this may make the difference between selecting a PBI and selecting the EPBB, since delaying payment of an identical amount of money for up to five years is likely to encourage projects in this size change to choose the EPBB unless they are convinced they will significantly outperform the target capacity factor. PG&E would like to see more large (>30 kW) projects move toward a PBI incentive.

PG&E does not object to the staff proposal that the PBI should only be required for systems over 100 kW at first. However, PG&E believes it should be possible for non-residential projects bigger than 30 kW to move to a PBI over time, perhaps after the first three years of the CSI.

The Staff asked whether the PBI should be phased in for customers larger than 100 kW. Because customers installing systems of this size are fairly sophisticated, PG&E sees no need to phase in the PBI over a period of years. It is actually simpler and administratively more straightforward for the incentive structure to be 100% PBI starting January 1, 2007, assuming a CPUC decision in the August 2006 time frame as contemplated in the Scoping Order that allows for incorporation of incentive details into the handbook and marketing and information efforts.

Staff noted that some parties have stated that a twenty percent capacity factor is not accurate for PV systems. It asked for reference data concerning capacity factors, including supporting data. Such information appears on the CPUC web site. As part of the SGIP,

Itron was retained to collect performance data on the projects participating in the program. Its most recent report, called the Fourth Year Evaluation Report, may be found at http://www.cpuc.ca.gov/static/energy/electric/050415_sceitron+sgip2004+impacts+final+report.pdf. At page 1-4, that report included PV system performance data, reporting an average capacity factor of 16% in 2004.[1/]

2.4 Expected Performance Based Buy Down Incentive -- Small Solar PV Systems < 100 kW

PG&E agrees that the PBI should not, at least at first, apply to smaller systems. PG&E suggests that a better division might be 30 kW, rather than 100 kW. However, PG&E agrees that some form of Expected Performance Based Buy Down (EPBB) incentive can strike the appropriate balance between a PBI and the current incentive structure to improve overall performance of systems installed through the CSI. PG&E also agrees that systems between 30 kW and 100 kW -- assuming the Commission ultimately adopts the same break point -- should be able to opt into the PBI. PG&E also believes the incentives awarded to projects coming on line in future years under the EPBB should ratchet down by either 10% per year, or by the amount established in D.06-01-024. Like the larger systems, Staff correctly notes the need for the Commission to retain some flexibility in these adjustments.

The EPBB Should Factor In Geographic Location. The purpose of the PBI (or variants on it) is to encourage solar projects that perform better than others. The Staff Proposal expressly declines in include geographic location in the EPBB. PG&E

1/ Similarly, the Clean Power Estimator on the CEC's web site assumes that many 1 kW PV projects will produce 1,461 kWh of electricity per year, which amounts to an effective capacity factor of 16.7% (1461 kWh divided by 8760 hours per year). See the Clean Power Estimator on the CEC web site at http://www.consumerenergycenter.org/renewables/estimator/index.html, using their default settings, which are a 30% tilt and a south orientatation. As explained in more detail below, that same program estimates that there can be tremendous variation depending on location and other factors.

encourages the CPUC to include such a factor in the EPBB calculations. Some parts of the state, like the central valley, are expected to produce far more power than other locations. For example, the Clean Power Estimator, which may be found on the CEC web site at http://www.consumerenergycenter.org/renewables/estimator/index.html, predicts that a project in Merced (zip code 95348) will produce 25% more power than a project in Eureka (zip code 95503), of identical size, orientation, and shading. This estimator states that a one kW project in the Central Valley is expected to produce 1,501 kWh of electricity in the first year, while a similar project located in Eureka is expected to produce only 1,209 kWh. With fixed budgets, the state should encourage projects to locate in the best locations by including a location factor in the EPBB, using a tool like the geographic factors built into the Clean Power Estimator.

Staff's proposal generally describes the factors (orientation and shading) that would be used in the adjustment for the EPBB. However, more details are needed to actually administer the program, including how exactly the incentive would be adjusted for any given orientation and shading level. For example, the Clean Power Estimator does not include an adjustment for shading, and does not have calculations for installation such as north, northeast, or northwest facing PV panels.

PG&E agrees that systems over 30 kW should have a post-installation inspection and (as discussed below) this inspection to review orientation and shading can be combined with the utility interconnection.

For systems under 30 kW, since PG&E must visit each site anyway as part of the interconnection process, PG&E suggests the Commission also consider requiring post-installation inspections of orientation and shading for all systems, not just those over a

certain size. To the extent remote data collection of system performance is available, the one-month actual performance comparison to system expected performance should be relatively easy to administer.

2.5. System Size Adjustment

PG&E believes the best size limitation for all solar installations is one based on actual or estimated annual usage. PG&E agrees that this will minimize the possibility of over sizing units, and is a better match for the customer's energy usage than a system sizing based solely on the maximum capacity.

3. Incentives For Non-PV Solar Technologies

Staff proposed that the CSI provide incentives for four types of non-photovoltaic (PV) concentrating solar technologies. These are concentrating PV, parabolic dish/engine, parabolic trough, and power tower. Staff also proposed that the Concentrating Solar Power (CSP) incentive levels and amounts will initially mirror those for PV, but beginning in 2009, PBI and EPBB incentives for these technologies will begin a steeper decline than for PV, decreasing annually by at least 15% per year.

PG&E does not know if these incentive levels, or the proposed schedule for reducing them, are the right numbers. It understands that some concentrating solar technologies cost far less to install than PV. For example, the CEC reports that various CSP technologies may be installed at a levelized cost of 15 to 21 cents per kWh, versus a 42 cents per kWh price for PV generation. See data on the CEC web site at http://www.energy.ca.gov/electricity/levelized_cost.html. If true, it may be possible to encourage the development of such projects at a lower cost than needed to bring PV on line. On the other hand, PG&E is unaware of any such projects being installed in the US

to date serving on-site load. There may be other market barriers inhibiting the marketing of CSP technologies, requiring higher incentives than cost alone would indicate. For that reason, PG&E has no objection to the Staff proposal for the first year incentive level. Depending on what emerges as a result of these incentives, an adjustment may be needed.

For concentrating solar technologies that use natural gas as a supplemental fuel, PG&E recommends that they be eligible for the program only if they meet the definition of a renewable fuel, which is that less than 25% of the input fuel comes from natural gas on an annual basis. If the natural gas usage exceeds 25%, a portion of the rebate should be returned. The capacity factor for a project with supplemental gas firing can be far higher than one powered solely by the sun, so the EBPP or PBI cap should be calculated to compensate the developer for the solar powered generation only, and not for the power generated by burning natural gas.

In terms of system sizing, in the case where the proposed concentrating solar technology input relies only on the solar collector field, the system size would need to be determined as a function of the solar field capacity. This method is as follows:

Lesser of: **# of modules * PTC Rating * Inverter Efficiency**
or: **Maximum Inverter Rated Capacity**

In the case of where the proposed concentrating solar technology input relies both on natural gas and the solar collector field, the system size would need to be determined as a function of both the solar field capacity and turbine nameplate rating, PG&E suggests the following methodology:

Lesser of: **Solar Collector Capacity Rating * System Efficiencies**
or: **Maximum Turbine Nameplate Rating**

4. Incentive Trigger Adjustment Mechanism Over The 10-Year Period

PG&E recognizes that setting the "ideal" rebate level is very difficult. Any trigger mechanism that is put into place should be transparent and provide the market with advance notice to minimize market disruption. We support the general concept of reducing the incentive 10% per year, while reserving options to apply special adjustments to reflect any significant technology or market breakthroughs. Obviously, the CPUC will not want to box itself in so that it must spend particular amounts even if it becomes clear to the Commission that this incentive level is too high or too low.

Staff asked what administrative mechanism can oversee and make these adjustments. In particular, it asked whether there should be a new CPUC proceeding each time, whether there should be an ALJ ruling based on staff recommendation and public comment (possibly with Commission affirmation), or delegation to the collective group of administrators, in consultation with CPUC staff. PG&E believes that setting the incentive level role is properly handled by the Commission and its employees, rather than by the administrators or market participants, and can be done via Staff/ALJ/ or full Commission ruling in an ongoing proceeding which is likely to remain open. PG&E believes some public communication and discussion is appropriate before the Commission decides to reduce or not reduce incentives. The key issue is how the market is responding to available incentives. If there is a huge waiting list, and most of the available dollars for the year are taken in the first days of the year, then the incentive level is clearly too high. If no one is signing up for available incentives, then it is too low. In between, the Commission

can look toward the planned trajectory of steadily declining incentives, and continue that decrease unless either of the extremes is encountered.

5. Funding Levels

The budgets for different customer classes must be further divided. This would ensure that a few large projects do not utilize all funding, so that none is available for residential customers (for example). This issue of budgets is also very important if there are to be multiple program administrators for separate portions of the program, such that the parties will know what budget they are administering, and whether they are even able to enter into contracts to grant incentives.

Of the 40.5 MWs installed in the state of California in 2005 (as compiled by the CEC: http://www.energy.ca.gov/renewables/emerging_renewables/GRID-CONNECTED_PV.XLS), 43% was installed through the CEC Emerging Renewables Program (under 30 kW) and the 57% was installed through the SGIP (over 30 kW). While it is difficult to predict the actual amount of applications that would be over and under 100 kW, PG&E proposes that the budget for each be set at 50% of the incentive budget for these classifications (the incentive budget that excludes low income, M&E, administration, and R&D budgets), as the installations in 2005 suggest that would be a reasonable initial budget estimate. Midway through 2007, program participation and program budgets can be evaluated.

In order to provide equity for ratepayers, we must ensure that funds are limited to each utility's pro-rata share of funding (i.e. funds collected from PG&E customers need to be spent on PG&E customers). This ensures that customers who are providing the funding

receive the benefit, and ensures ratepayers in one service territory are not subsidizing ratepayers in another service territory.

PG&E agrees that if a Program Administrator "borrows forward" from the next year budget, they should fund projects at that next years incentive level.

6. Incentive Administration: PG&E Should Be The Administrator Of The CSI for All Customer Segments In Its Service Area.

In its January decision, the CPUC concluded that existing SGIP administrators could continue to administer the commercial and industrial sectors, but that the Commission would explore using third-party administration of the residential retrofit portion of the CSI. Staff proposes to modify this decision, and encourages the CPUC to give administration of the CSI for all projects smaller than 100 kW to a non-profit, non-utility administrator. PG&E strongly disagrees with this proposal, and should administer CSI incentives to all customer segments in its service area.

Staff gives three reasons why a non-profit entity should be selected. First, it argues that existing program administrators, other than the SDREO, do not have the current experience or infrastructure prepared to handle large numbers of applications for small system incentives. (Staff report at page 43). Second, it argues that this approach is consistent with the approach the Commission adopted for energy efficiency. (p. 43). Third, it argues that the program administrators do not have a "demonstrated commitment to promoting solar development and innovation in California without any perceived or inherent conflicts that might discourage solar installations." (p. 43).

In fact, none of these claims is accurate as to PG&E. As explained in detail below, PG&E has a long track record of administering incentives for huge numbers of customers, large and small. The Staff Proposal is directly at odds with the result of recent

Commission decisions concerning energy efficiency administration. In addition, PG&E has demonstrated its support for solar power, and has no conflicts of interest. For customers, PG&E administration offers significant cost and other "one stop shopping advantages." Finally, PG&E administration preserves CPUC control and supervision over the administrator. PG&E should administer the program for all customer segments not reserved to the CEC.

A. PG&E Has Demonstrated Experience As Administrator Of The SGIP And High Volume Incentive Programs.

Several parties and Staff have claimed that PG&E does not have the proven track record to process applications in the magnitude of CSI. In fact, we already do so! PG&E has implemented mass energy efficiency programs since the mid 1980's, in which it provides incentives to literally thousands of customers every year. In 2005, PG&E issued over 130,000 energy efficiency rebate checks, as seen below, in Table 1.

Table 1: Total Checks Processed by Customer Energy Efficiency Integrated Processing Center

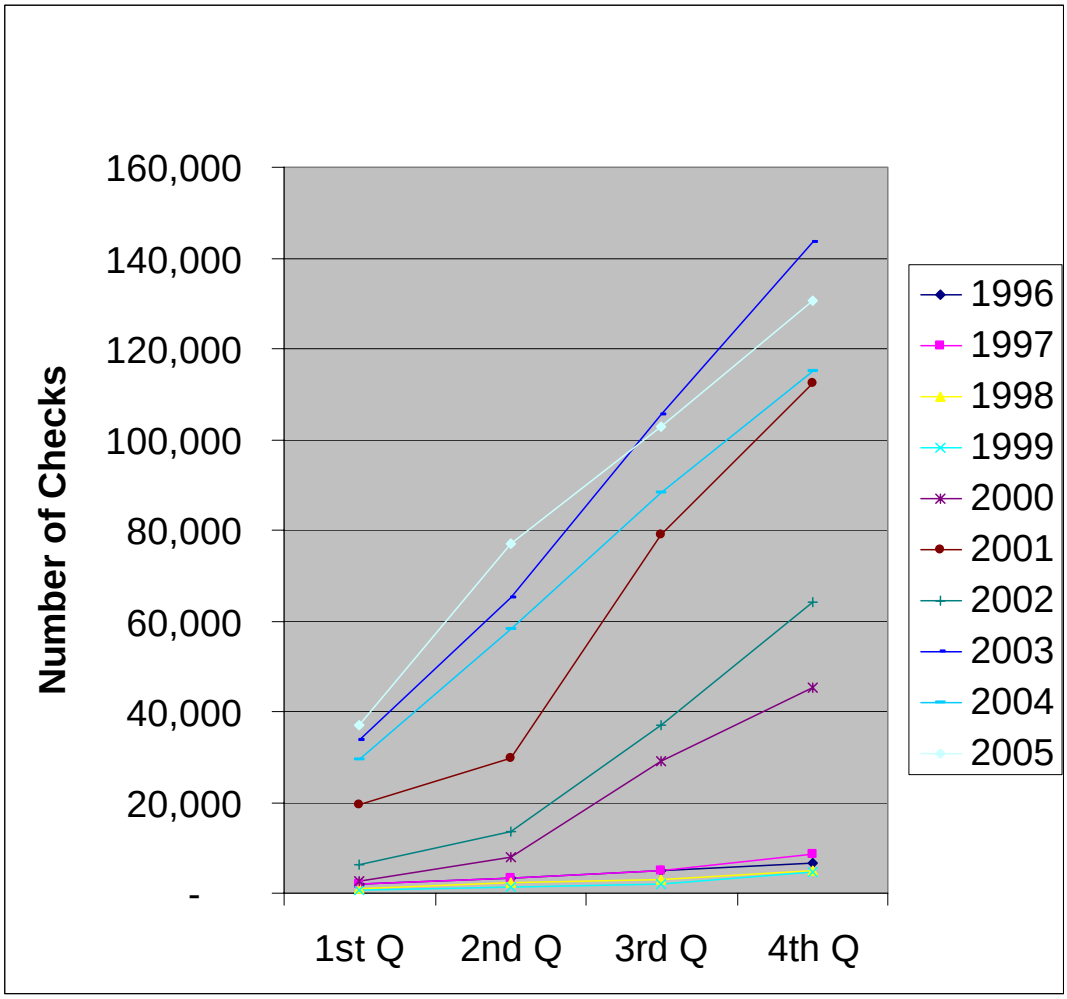

Table 1 demonstrates that PG&E has the capability of processing far more checks than the volume of projects for which CSI funding is available. While the number of transactions increase annually, we are constantly striving to reduce transaction time and cost. However, even more importantly, each solar customer is already required to interconnect with PG&E – ***so we already process every solar customer in our service territory***. PG&E has successfully interconnected over 10,000 solar customers already.

PG&E has further demonstrated its ability to manage large-scale programs with its successful Low Income Energy Efficiency (LIEE) program. PG&E's LIEE program is a

national leader in providing energy efficiency technologies and services to low income customers. PG&E is on track to provide energy efficiency measures to over 62,000 low income households in 2006. PG&E also processes massive applications in our CARE program, demand response and load management programs.

The current SGIP administrators have done an excellent job, as verified by Itron's survey of customers,[2/] and by the low administrative costs of the program. Although the Commission has stated that administrative expense must not exceed 5%, PG&E has averaged less than 2.5% admin costs (admin costs compared to annual budget).

Payment dates: At the recent workshop, one speaker complained that the CEC and some program administrators have delayed making payments. This is not true of PG&E. The current SGIP requirement for payment is: "Upon final approval of the incentive claim form documentation and completed field verification visit, the Program Administrator will issue the incentive in approximately 30 days." In 2006, PG&E's average payment time for solar SGIP projects under this definition is 12 days.

B. The Staff Proposal Is Directly At Odds With The Commission's Approach To Energy Efficiency Administration.

CPUC control of program implementation and delivery. In 2003 and 2004, the CPUC heard extensive debate, hearings, and briefing concerning whether utilities should administer energy efficiency programs. Eventually, the CPUC concluded that these programs are properly administered by utilities. See D.05-01-055 (Jan. 2005). As the Commission recognized, "The Commission has broad regulatory authority to ensure and enforce the IOUs' compliance with our policy rules and requirements based on current

2/ These customers gave high praise to PG&E administration. See Itron Report dated September 2, 2003, page 5-5.

statute and Constitutional authority. In contrast," [under the contractual authority the CPUC would exercise over an independent administrator] "we would have limited recourse in the event that the programs do not deliver the requisite energy savings or the program administrator fails to perform in other ways."[3/] In arriving at this conclusion, the Commission considered the central role energy efficiency played in the utilities procurement function as the first resource in the procurement loading order, only ahead of renewables such as solar. It also considered the important regulatory control the Commission would maintain with utilities as energy efficiency portfolio administrators, and the difficulties avoided in transferring large amounts of funds to untested, "independent" administrators, and various technical difficulties in contracting.[4/] Staff proposal goes the exact opposite direction from the Energy Efficiency debates just concluded.

C. PG&E Has Demonstrated Its Support For Solar Power.

In addition to efficient SGIP administration, PG&E has taken many other actions that demonstrate our support for solar power. The original SGIP decision (D.01-03-073) gave the ability that"...the utilities may exercise full discretion in moving funds from non-renewable self-generation categories to the renewable category..." PG&E has consistently and voluntarily reallocated budgets from the non-renewable categories when there was available budget to fund solar projects. In the time period 2001 through 2005, PG&E has voluntarily shifted funding ***13 times***, increasing the Level 1 Solar budget from an original budget of $82 million to $214.1 million (**an increase of 261%**).

3/ D.05-01-055, page 63.

4/ See the discussion in D. 05-01-056 from pages 51 to 84, and the corresponding Findings of Fact and Conclusion of Law.

In addition, in 2004, PG&E created the Solar Schools Program, which provides funding (through PG&E's shareholder-funded charitable contributions) for solar systems for schools, as well as educational materials and curriculum related to solar power for teachers. In 2006, PG&E will increase these efforts by extending the program to 30 schools, and also will hold teacher trainings that will reach 600 teachers and provide them with accompanying curriculum to teach solar science to California's schoolchildren

PG&E's continuing support for solar power has contributed to the installation of more solar units in its service area than any other utility in the country. Indeed, according to industry reports previously presented to this Commission, over half the solar projects installed in the entire United States in 2004 were installed in PG&E's service area. PG&E has consistently supported solar power, including supporting the increased 2006 SGIP solar budget and the CSI program budget. While PG&E takes its responsibility as a steward of customer funds seriously, this desire to spend customer funds prudently should not be interpreted as a lack of support for solar power.

Additionally, PG&E has already implemented an Integrated Demand Side Management (IDSM) approach to delivering energy efficiency, demand response, load management and distributed generation programs to its customers. In 2004, PG&E developed and began implementing an audit tool that evaluates customers' facilities and offers information about IDSM measures, including information on the SGIP solar rebate. PG&E believes an integrated approach best meets individual and overall customers' energy needs.

Several parties also commented on the need for education and outreach. Since the fall of 2003, PG&E has hosted many solar (as well as co-generation and fuel cell) classes,

held in multiple locations. In 2006, these classes are available both in person as well as being offered on–line, via web-conferencing. They are free of charge and open to any interested party.

Implementation of the portion of the CSI directed to the low income community presents some unique problems and opportunities. The Pacific Energy Policy Center correctly noted that the IOUs already have Low Income Energy Efficiency (LIEE) programs. Having PG&E also administer the CSI program would thus ensure that coordination with the LIEE is as seamless as possible. PG&E supports further coordination of energy efficiency within the CSI program, and believes the work done to date puts PG&E in a prime position to implement the final recommendations from the Commission and subsequent workshops quickly and efficiently.

In addition, to the extent the Commission is concerned about the outreach portion of the program, notwithstanding its track record, PG&E could hold an Innovative Solicitation for third party partnerships for aspects of marketing, education and outreach of the CSI. These parties can be third-parties with a history of promoting solar. The winning proposals could be selected by the advisory panel formed by the Energy Division (including PG&E), and then enter into contract with PG&E for implementation. Potential proposals could include marketing, educational forums, outreach, contractor training, etc. In utilizing this approach, the partnerships would need to be closely aligned with current program status, for example, if PG&E's solar incentive budget for a given year was already exhausted, we would want the partnerships to focus less on marketing, but instead have a larger focus on training, education and outreach.

PG&E hopes that such an approach would alleviate misplaced concerns about perceived conflicts of interested in terms of marketing, education and outreach, while utilizing the existing utility infrastructure for administration. This approach could also foster relationships between the solar community and PG&E, and provide an opportunity for a variety of organizations to actively participate in and contribute to the CSI program and its subsequent success.

D. PG&E Administration Would Provide Significant Cost And Other "One Stop Shopping" Advantages

Participants in the CSI will be dealing with PG&E on many issues related to their solar projects, whether or not it administers the incentive program. Avoiding dispersing these functions among multiple parties would simplify and streamline the process, and PG&E administration of the CSI program will promote coordination, avoid delays, and prevent the applicant from dealing with multiple agencies. No matter who the CPUC decides should administer the CSI, PG&E will continue to have the following roles:

- Interconnection: Customers need to interconnect to ensure safe interconnections that do not adversely affect the reliability of service to other customers.
- Billing records: For retrofit projects, PG&E can use our billing records and can verify customer information (such as historical energy usage used in the energy audits) quickly and efficiently. This will eliminate requiring the customer to provide billing records.
- New service connections: All new construction projects must interact with PG&E to initialize electric and gas service.

- All CSI projects will need to participate in energy efficiency audits. PG&E can help facilitate and guide through process and coordinate with our energy efficiency department.
- Integration of EE/solar/Demand Response.
- PG&E believes an integrated Demand Side Management (IDSM) approach to delivering energy efficiency, demand response, load management and distributed generation programs best meets individual and overall customers' energy needs. In 2004, PG&E developed and began implementing an audit tool that evaluates customers' facilities and offers information about IDSM measures, including information on the SGIP solar rebate.

E. Concerns About Tax Exposure of Incentive Recipients Resulting From Non-Utility Administration Warrants Maintaining Utility Administration While The CPUC Seeks IRS Clarification.

The Staff stated at the workshop and again in the Supplemental Ruling of May 9th that it is considering seeking an IRS ruling about whether non-utility administration would cause incentives to become taxable to the recipient. PG&E strongly encourages the Commission to seek such a ruling, and to hold off on creating new non-utility administrators if there is any risk that the recipients could be subject to increased and unwelcome taxes as a result of this administrative structure.

PG&E has demonstrated an excellent track record in administering the SGIP, and that it can perform additional functions such as energy efficiency coordination, education and outreach -- because it is already doing so. It does not make any sense to hand over a program of this magnitude and this importance to a third-party organization that lacks experience and a proven track record. Finally, as the Commission recognized in D.05-01-

055, turning utility dollars over to third-party administrators can weaken Commission control of program implementation and delivery. PG&E is well suited to handle administration of the expanded program.

7. Metering Requirements

In general, PG&E supports the approach taken to metering issues in the Staff Draft Proposal. PG&E agrees that any PBI incentive requires revenue-quality metering of the solar generator. In addition, when revenue-quality metering costs are a small fraction of overall project costs (as is the case generally with nonresidential customers), P&GE supports requiring them. PG&E is open to exempting residential customers from the requirement that system output be measured using revenue-quality meters.

PG&E also supports the concept of a working group to explore integration of remote transmittal, web-based presentation of data, and possible incorporation of information on customer's bills.

7.1. Large systems > 100 kW

PG&E is unable to provide on-bill reporting of incentive and performance data for the PBI incentives by January 2007, though that capability could be added in the future. PG&E suggests it may provide more clarity for customers if they receive the PBI incentive separate from their monthly bill, and it is also likely to be less expensive to deliver incentives this way. Many customers participating in the PBI program may also be net metering customers. If they have sized their system to reduce their annual energy costs to zero or near-zero, the PBI incentive will appear as a substantial credit. While the billing system could be programmed to issue a check whenever there is a credit, it would be complex – and potentially confusing to the customer – when part of the credit they see

results in a check (the PBI payment) and part of their credit does not (the NEM credit, which must be carried forward until the annual true-up).

Staff asked how the CSI metering requirements should be integrated with the Advanced Metering Initiative (AMI). PG&E believes that the two are compatible and support each other. However, AMI will not be available at all locations for some time, as a five year rollout and installation program is planned after CPUC approval.

Staff also asked whether, if an inverter has an "internalized meter," is its accuracy sufficient to avoid a separate "revenue grade" meter? That should not be assumed, particularly for larger projects, where the meter data is the basis for payments. For small and intermediate sized systems, PG&E is willing to explore whether the internal meters are revenue grade, and whether they can be made compatible with AMI or telecommunication systems. However, for larger systems, where the cost of the meter is a tiny fraction of the overall cost, and the meter data is used to make actual incentive payments, a separate meter should be required.

Staff also asked about PG&E's ability to provide output data to customers. PG&E could, through its Alternate Billing System, provide regular reports to the customer that describes system performance and produces the PBI incentive, and as AMI is deployed, may be able to provide output data on a daily basis. PG&E will be exploring this issue further, and looks forward to discussing it with the Commission and interested stakeholders.

7.2. Small Systems < 100 kW

PG&E has no comments on the recommendations in this section. Meters that can remotely communicate, but that are not revenue grade, would be helpful in providing

general information on system operations for smaller installations. Where the incentive is not dependent on system performance -- as would be the case with smaller installations -- revenue-quality metering would not necessarily be required. Residential units can still receive the post-installation verification as part of the interconnection process, as discussed above. However, if the Commission decides to also require systems under 30 kW to be monitored for one month prior to receiving a rebate, then revenue grade metering would be required even for residential customers.

7.3. Net Metering Considerations

PG&E agrees that the Commission and other policymakers need accurate information about the total impact of the CSI, including net metering costs, and the costs shifted due to exemptions from interconnection and standby charges, as well as the exemptions from public purpose program and other nonbypassable charges. The CPUC hopes that the CSI will add 3000 MW of solar generation to California over the next eleven years, so it is appropriate for the CPUC to gather information on the costs of the program to other customers in addition to the $3.2 billion intended for incentives, administration, measurement and research.

PG&E notes that the record in this OIR includes the benefit cost information included in the previous DG OIR. The CPUC already has extensive information, including testimony and the Itron study, which can inform any analysis of the costs of net metering that are shifted to other customers. In particular, PG&E has performed extensive analysis of the costs of net metering, which were presented in the cost-benefit stage of the last Distributed Generation Rulemaking. PG&E welcomes the opportunity to update this work, and to compare the results with other stakeholders.

8. Energy Efficiency Requirements Tied To Solar Incentives

The Staff Report asked several questions about how to implement the CPUC January decision requiring an energy efficiency audit as a condition of receiving a CSI incentive. PG&E's responses follow.

What certification or audit protocol should we accept for acceptable energy audits by providers outside the utility audit programs? For non-utility audits: PG&E recommends that the minimum audit requirements conform with current Title 24 specifications.

For any audit (non-utility, web, in-person or telephone), the recipient should request two copies of the results, and submit one copy with the CSI application.

In the future, the Commission should consider reducing the authorized solar system size if a building has not undertaken recommended efficiency measures that have a simple payback of less than 3 years. For example, if the audit shows that 20% of the energy could be saved with less than 3 year payback, than 80% of usage would be the maximum solar size eligible for a rebate.

The Staff proposes: "All audit programs should be continuously available and funded by the utilities, and the program administrators should work together to facilitate seamless coordination between the audit programs and the CSI." PG&E seeks clarification that this does not apply to audits by non-utility providers, as stated by Staff at the May 4th workshop, and also clarification that if auditing budgets are not sufficient to handle the increased work, that either the EE budget should be increased, or that some of the auditing work could be paid for out of the CSI budget.

Staff asked whether the CPUC should automatically exempt all new commercial construction from the energy efficiency audit recommendation, since by law these

developments must comply with Title 24 energy efficiency codes. PG&E has no objections to this proposal.

III. CONCLUSION

PG&E supports the solar program proposed by staff, subject to the suggestions included here.

Respectfully submitted,

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Attorneys for
PACIFIC GAS AND ELECTRIC COMPANY

Dated: May 16, 2006

CERTIFICATE OF ELECTRONIC SERVICE

I, the undersigned, state that I am a citizen of the United States and am employed in the City and County of San Francisco; that I am over the age of eighteen (18) years and not a party to the within cause; and that my business address is Pacific Gas and Electric Company, Law Department B30A, 77 Beale Street, San Francisco, California 94105.

On the 16th day of May, 2006, I served a true copy of:

OPENING COMMENTS OF PACIFIC GAS & ELECTRIC COMPANY ON THE STAFF PROPOSAL FOR PERFORMANCE BASED INCENTIVES AND OTHER ELEMENTS OF THE CALIFORNIA SOLAR INITIATIVE

[XX] By Electronic Mail – serving the enclosed via e-mail transmission to all parties on the official service list for CPUC Docket R.06-03-004 that have provided e-mail addresses.

I certify and declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed on the 16th day of May, 2006 at San Francisco, California.

/s/
PATRICIA A. KOKASON